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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MARTIR, LILYBETT

ART UNIT

PAPER NUMBER

2855

DATE MAILED: 04/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/634,507

Examiner

Lilybett Martir

Applicant(s)

KARBASSI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001 .
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 7, 9 and 11-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9 and 11-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 December 2001 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_ .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2,6-7,9,11-12,and 15-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Frick (Pat. 4,466,290). Frick teaches the claimed invention, including:

- A housing as composed by the two portions shown in Figure 3 having an inlet and an outlet as inherently pointed by elements 24 and 26, first and second channels in communication with the inlet and the outlet as in elements 36A and 38A, a sensing element in the first channel as in element 66, a restriction in the second as in element 88, and a seal engaging the sensing element so as to prevent flow of a fluid past the sensing element as in elements 50 and 52 , where there is an electrically conductive path from the sensing element to a lead as in elements 74 as noted in Figure 4, as in claim 1.
- A housing formed by two portions that inherently includes a base and a cover as noted in Figure 3, as in claim 2.
- A fluid that is inherently a liquid or a gas (See abstract), as in claim 6.
- The inlet 24, the outlet 26, and the second channel 82 being arranged to permit a flow of the fluid through the housing between the inlet and the outlet

- and wherein the sensing element is arranged to sense a pressure change across the restriction 88 as noted in Figure 4, as in claim 7.
- The inlet 24, the outlet 26, and the second channel 82 being inherently arranged to permit a bi-directional flow of the fluid through the housing between the inlet and the outlet and wherein the sensing element is arranged to sense a pressure change across the restriction as in element 88 as noted in Figure 4, as in claim 9.
  - A housing as composed by the two portions shown in Figure 3 having an inlet and an outlet as in elements 24 and 26, first and second channels as in elements 36A and 38A in communication with the inlet and the outlet as in, a sensing element in the first channel as in element 66, wherein the sensing element has first and second sides, the first side being in fluid communication with the inlet and the second side being in fluid communication with the outlet as noted in Figure 4; a restriction in the second channel as in element 88 wherein the restriction permits flow of a liquid through the inlet, the second channel and the outlet, and a seal engaging the sensing element so as to prevent flow of a fluid past the sensing element as in elements 58, wherein the sensing element senses a pressure change across the restriction as in element 88, as in claim 11.
  - A housing formed by two portions that inherently includes a base and a cover as noted in Figure 4, as in claim 12.

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- The inlet 24, the outlet 26, and the second channel 82 being arranged to permit a flow of the fluid through the housing between the inlet and the outlet as noted in Figure 4, as in claim 15.
- A conductive path from the sensing element 66 to a lead as in elements 74 as noted in Figure 2, and wherein the leads extend outside the sensor housing as noted in Figure 4, as in claims 16,18 and 19.
- The inlet 24, the outlet 26, and the second channel 82 inherently arranged to permit a bi-directional flow of the fluid through the housing between the inlet and the outlet as noted in Figure 4, as in claim 17.
- Regarding claims 20-23, said claims are method claims that exist as an essential constituent of the claimed invention, and therefore are said to be inherently disclosed by the teachings of Frick.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 13-14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frick (Pat. 4,466,290). Frick teaches the claimed invention, including:

- A pair of seals as in elements 58, wherein the sensing element 66 is situated between the seals, and wherein the seals are arranged to prevent leakage

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between the base and the cover (Col. 5, lines 48-53), as in claims 3-4 and 13-14.

But he does not disclose:

- Seals being elastomeric, as in claims 3-4, 13-14 and 24.

It would have been an obvious matter of design choice to modify the differential pressure sensor of Frick by providing seals that are specifically elastomeric seals for the purpose of preventing leaks that may alter the accuracy of said sensor, since applicant has not disclosed that the use of elastomeric seals solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with Frick's sealing means. Frick discloses that his sealing means 58 "are formed from materials preferably chosen to resist damage from the corrosive properties of the fluid." (Col. 5, lines 51-53), therefore suggesting that the selection of the materials utilized to make said seals is basically a matter of design choice.

#### ***Citation of Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art considered pertinent during examination of the examined application is:

- Jenkins (Pat. 4,555,952) Differential pressure sensor.
- Grände (Pat. 4,240,294) Flow meter.
- Delajoud (Pat. 5,445,035) Precision gas mass flow measurement apparatus and method maintaining constant fluid temperature in thin elongated flow path.

***R s p o n s   t o   A r g u m e n t s***

Applicant's arguments filed December 27, 2001 have been fully considered but they are not persuasive. The applicant's mere allegations that he does not recognize the existence of the elements and the combination of elements similar to that of his claimed invention in Frick's disclosure is not sufficient to overcome the prior art rejection. The examiner believes that Frick 's disclosure **does teach** the claimed elements and combinations as disclosed in the prior art rejection.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilybett Martir whose telephone number is (703)305-6900. The examiner can normally be reached on 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin Fuller can be reached on (703)308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-3432 for regular communications and (703)305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

*LM*  
Lilybett Martir  
Examiner  
Art Unit 2855

*RCM*  
April 22, 2002

*[Signature]*  
Benjamin R. Fuller  
Supervisory Patent Examiner  
Technology Center 2800